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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/727,062	11/30/2000	Paul W. Dent	4015-721	2720

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EXAMINER
POLTORAK, PIOTR

ART UNIT	PAPER NUMBER
2134	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	09/727,062	DENT, PAUL W.
	Examiner	Art Unit	
	Peter Poltorak	2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *11 October 2006*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-5,7-12,14,15,17,18 and 20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-5, 7-12, 14-15, 17-18 and 20* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1. In view of Appeal Brief filed on 10/11/06 the prosecution is reopen.

Response to Arguments

2. Applicant's arguments with respect to claims 1-5, 7-12, 14-15, 17-18 and 20 have been considered but are moot in view of the new ground(s) of rejection.

3. Claims 1- 5, 7-11 and 14-15, 17-18 and 20 have been examined.

Claim Objections

4. Claims 1-5, 7-12, 14-15, 17-18 and 20 are objected to because of the following informalities: applicant is not consistent in using articles. For example claim 1 recites "the security module" while claim 7 recites "said security module". Applicant should ensure the consistency through the claim language.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-5, 7-12, 14-15, 17-18 and 20are rejected under 35 U.S.C. 103(a) as being

   unpatentable over Pichlmaier (U.S. Patent No. 5317637) in view of *Windows NT as*

   illustrated by Ozzie (U.S. Patent No. 5664099) and Hadfield et al. (Lee Hadfield,

   Dave Hater, Dave Bixler, "Windows NT Server 4 Security Handbook", 1997, ISBN:

   078971213).

   As per claims 1 and 11, Windows NT discloses authentication password entry

   screen, receiving a command to execute a password-protected secure function

   (Hadfield, "The Log-On process", pg. 80-81) that temporarily halts execution of

   programs not needed by a security module while the data entry screen is displayed

   and restarts halted programs after the password entry screen is removed from the

   display prompting a user to enter a password (Ozzie, col. 1 lines 51- col. 2 line 1).

   An ordinary artisan would appreciate that devices utilizing Windows NT systems

   comprise memory and processors.

6. Windows NT does not teach storing authentication indicia for authenticating

   password entry screens to a user in a memory of the computing device.

   Pichlmaier discloses a device comprising a secure processor and memory storing

   authentication indicia (data word, Pichlmaier, col. 2 lines 17-32).

   It would have been obvious to one of ordinary skill in the art at the time of applicant's

   invention to implement the indicia for authentication password entry screen to a user

   in a memory of the computing device. One of ordinary skill in the art would have

   been motivated to perform such a modification in order to verify the authenticity of

   the device system (Pichlmaier, col. 1 lines 38-46).

Similarly, it would have been obvious to one of ordinary skill in the art at the time of

applicant's invention to implement Windows NT teaching into the device disclosed

by Pichlmaier given the benefit of establishing a protected channel between a user

and legitimate programs and terminate any hostile programs (e.g. Trojan horses,

eavesdropping programs etc., Ozzie, col. 1 lines 46-67).

7. As per claims 2 and 4, the indicia stored in the device module is obtained from a

user (col. 2 lines 29-31) and as per claims 12 and 20, Pichlmaier discloses a

removable smart card (Pichlmaier, Fig. 1).

8. As per claim 3, it is clear the indicia taught by Pichlmaier reads on confidential data

As a result, it would have been obvious to one of ordinary skill in the art at the time

of applicant's invention to display the indicial for a limited time in order to prevent

unnecessary exposure and as a result minimize threats of attacks.

9. As per claims 5, 7-8 and 14-15, as discussed above, Windows NT discloses halting

any application programs which are in operation during the password entry

sequence and after the information has been entered correctly the operating system

returns control to the application. This reads on halting executing of programs

running on the computing device not necessary for inputting the password while the

password entry screen is displayed, inhibiting an operating system in the computing

device from responding to interrupts not associated with the security module and

inhibiting context-switching by an operating system in the computing device to

programs not needed by the security module.

10. As per claims 9-10 and 17-18, Windows NT does not explicitly teach a status table in

RAM that is used by an operating system in the computing device, wherein each

entry in the tables relate to a currently executing program and containing a status

indication associated with the currently executing program, saving current setting of

the status table and changing the current setting so as to inhibit execution by the

operating system of the programs not needed by the security module.

However, utilizing tables to store and retrieve related information are well-known in

the art of computing (see previously provided to applicant Carter's reference: Fig.

21-9 pg. 795). Utilized data structure to store data such as program status

information would have been obvious to one of ordinary skill in the art at the time of

applicant's invention given the benefit of table structure commercial success.

The name of a table (e.g. a status table, an alternate status table) would not affect

functionality of the invention especially since the claim language does not preclude a

status table to be different from an alternate status table.

Furthermore, grouping information by common characteristics in different tables

would have been an obvious variation. It would have been obvious to one of

ordinary skill in the art at the time of applicant's invention to group similar information

in the same table (e.g. information relating to a currently executing program in a

status table, information relating to programs needed by security module in another

table). One of ordinary skill in the art would have been motivated to perform such a

modification in order to a quick access to related information.

11. Claims 1, 3, 5, 7-11 and 14-15 and 17-18 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Ozzie (U.S. Patent No. 5664099).

As per claims 1, 11 Ozzie discloses authentication indicia known to a user for

authenticating password entry screens to the user (Fig. 2A-C, col. 3 lines 49-67 and

col. 8 lines 65-67). Ozzie explicitly discloses that the apparatus implementing the

indicia is a computer with memory (col. 3 lines 8-15) and computers inherently store

data such as display data in memory.

Furthermore, Ozzie discloses Windows NT, wherein Ozzie discloses receiving a

command to execute a password-protected secure function (Control-Alt-Delete) that

temporarily halts execution of programs not needed by a security module while the

data entry screen is displayed and restarts halted programs after the password entry

screen is removed from the display prompting a user to enter a password (Ozzie,

col. 1 lines 51- col. 2 line 1).

It would have been obvious to one of ordinary skill in the art at the time of applicant's

invention to incorporate Windows NT halting and restarting execution of programs

not needed by a security module as disclosed by Windows NT given the benefit of

establishing a protected channel between a user and legitimate programs and

terminate any hostile programs (e.g. Trojan horses, eavesdropping programs etc.,

Ozzie, col. 1 lines 46-67).

The examiner reminds applicant that in Windows NT, "the particular key sequence

during information (password) entry" discussed by Ozzie is an authentication

function executing the password-protected secure function based on the validity of

the password entered by the user (for additional information see Hadfield reference

for example: "The Log-On Process", pg. 80-81).

Furthermore, it would have been obvious to one of ordinary skill in the art at the time

of applicant's invention to remove data entry screens after successful authentication

process in order to enable the authenticated users to access their desktop. Note

that such a mechanism is frequently implemented in the prior art, e.g. Microsoft

products such as Windows NT.

12. As per claim 3, Ozzie clearly discloses removing the entry screen (Fig. 2A-C) would

remove the indicia. Furthermore, it is clear from Ozzie's disclosure that indicia is

confidential data displayed during the authentication process to authenticate the

screen. Thus, it would have been obvious to one of ordinary skill in the art at the

time of applicant's invention to display the indicial for a limited time to prevent any

security attacks.

13. As per claims 5, 7-8 and 14-15, as discussed above, Ozzie discloses halting any

application programs which are in operation during the password entry sequence

and after the information has been entered correctly the operating system returns

control to the application. This reads on halting executing of programs running on

the computing device not necessary for inputting the password while the password

entry screen is displayed, inhibiting an operating system in the computing device

from responding to interrupts not associated with the security module and inhibiting

context-switching by an operating system in the computing device to programs not

needed by the security module.

14. As per claims 9-10 and 17-18 Ozzie does not explicitly teach a status table in RAM that is used by an operating system in the computing device, wherein each entry in the tables relate to a currently executing program and containing a status indication associated with the currently executing program, saving current setting of the status table and changing the current setting so as to inhibit execution by the operating system of the programs not needed by the security module.

However, utilizing tables to store and retrieve related information are well-known in the art of computing (see previously submitted to applicant Carter's reference: Fig. 21-9 pg. 795). Utilized data structure to store data such as program status information would have been obvious to one of ordinary skill in the art at the time of applicant's invention given the benefit of table structure commercial success.

The name of a table (e.g. a status table, an alternate status table) would not affect functionality of the invention especially since the claim language does not preclude a status table to be different from an alternate status table.

Furthermore, grouping information by common characteristics in different tables would have been an obvious variation. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to group similar information in the same table (e.g. information relating to a currently executing program in a status table, information relating to programs needed by security module in another table). One of ordinary skill in the art would have been motivated to perform such a modification in order to a quick access to related information.

15. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ozzie (U.S.

    Patent No. 5664099) in view of Cottroll (U.S. Patent No. 5465084).

    Ozzie discloses authentication credential: indicia, as discussed above.

16. Ozzie does not teach that obtaining the credential from users.

    Cottrell discloses obtaining the authentication credential from users (Cottrell, col. 4

    lines 16-20).

    It would have been obvious to one of ordinary skill in the art at the time of applicant's

    invention to obtain the authentication credential from users as disclosed by Cottrell.

    One of ordinary skill in the art would have been motivated to perform such a

    modification in order to use authentication credential easily remembered by the

    users.

17. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ozzie

    (5664099) in view of Bertina (U.S. Patent No. 6091817).

    Ozzie discloses a device for executing a password-protected secure function

    comprising a secure processor and memory as discussed above.

18. As per claim 2, Ozzie does not explicitly disclose storing the indicia in a security

    module.

    Bertina discloses storing data in a security module (Bertina, col. 2 lines 7-12).

    It would have been obvious to one of ordinary skill in the art at the time of applicant's

    invention to data such as indicia in a security module as disclosed by Bertina. One of

    ordinary skill in the art would have been motivated to perform such a modification in

    order to restrict access to the data.

19. Claim 11 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Ozzie (5664099) in view of Challener (U.S. Patent No. 6598032).

Ozzie discloses a device for executing a password-protected secure function

comprising the processor and the memory as discussed above.

20. Ozzie do not disclose the device comprising a smart card containing the processor

and the memory.

Challener discloses a removable smart card containing a processor and memory

(Challener, col. 2 lines 6-15).

It would have been obvious to one of ordinary skill in the art at the time of applicant's

invention to implement the processor and the memory disclosed by Ozzie into a

removable smart card as disclosed by Challener. One of ordinary skill in the art

would have been motivated to perform such a modification in order to extend

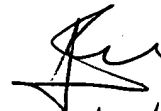security into the Challener's card.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Peter Poltorak whose telephone number is (571)

272-3840. The examiner can normally be reached Monday through Thursday from

9:00 a.m. to 4:00 p.m. and alternate Fridays from 9:00 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Gilberto Barron can be reached on (571) 272-3799. The fax phone

number for the organization where this application or proceeding is assigned is

(571) 273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

1/4/07

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by

signing below:

ALBERT DECADY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100